

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT

#11

In Re Application of: Brown et al.
Application No.: 09/197,278
Filed: November 20, 1998
For: Improved Longitudinally Flexible Stent
Examiner: L. Ngo
Group Art Unit: 3731

Director Of Patents and Trademarks
Washington, D.C. 20231

Docket No.: S63.2-6769

Declaration
S. Bryce
11/22/00

DECLARATION OF TIMOTHY J. LEY

I Timothy J. Ley declare that:

1. I am the inventor of the subject matter of claims 2-9, 23-28, 39-45, 49 and 52 of the above-titled patent application.
2. I am making this Declaration in order to establish a completion of the invention of the subject matter of claims 2-9, 24-28, 39-45, 49 and 52 in this country before the May 20, 1998 filing date of US 6,017,365 issued to Von Oepen, through conception and a reduction to practice of claimed aspects of the invention prior to May 20, 1998.
3. Prior to May 20, 1998, I conceived and reduced the invention of claims 2-9, 24-28, 39-45, 49 and 52 to practice in the U.S. A copy of a photograph of a stent, marked Exhibit A accompanies this declaration. The stent shown in Exhibit A was made and photographed prior to May 20, 1998.
4. The stent shown in Exhibit A comprises first and second band-like elements, where the first band-like elements have a first selected wavelength, the second band-like elements have a second selected wavelength, and the second selected wavelength longer than the first wavelength, as recited in claim 2. The additional features of claims 3-9, 24 and new claim 38 all of which depend directly or indirectly from claim 2 are also seen in Exhibit A.
5. The stent of Exhibit A also includes the features of claim 25. The stent of claim 25 comprises one or more cylindrical shaped first segments having first struts and one or more

cylindrical shaped second segments having second struts where the first struts are shorter than the second struts. Also, the number of first struts in the first segment exceeds the number of second struts in the second segment. Adjacent first and second segments are connected by a plurality of interconnecting elements. The first ends of the interconnecting elements are displaced circumferentially along the stent from the second ends of the interconnecting elements. All of these features are present in the stent of Exhibit A. The additional features of claims 26-28 are also seen in Exhibit A.

6. The stent of Exhibit A is also seen to have the features of claim 39. Specifically, the stent of claim 39 comprises at least two interconnected, non-abutting undulating band-like elements located at a proximal end of the stent and at least two interconnected, non-abutting undulating band-like elements located at a distal end of the stent. The stent further has a first band-like element having alternating first peaks and first troughs where the first peaks are longitudinally aligned with one another and the first troughs are longitudinally aligned with one another. A second band-like element having alternating second peaks and second troughs is also present. The second peaks are longitudinally aligned with one another and the second troughs are longitudinally aligned with one another. A third band-like element having alternating third peaks and third troughs is also present. The third peaks are longitudinally aligned with one another and the third troughs are longitudinally aligned with one another. The second undulating band-like element is disposed between the first and third undulating band-like elements. Further, the plurality of interconnecting elements include first interconnecting elements and second interconnecting elements. Each first interconnecting element has a first end and a second end. The first end is circumferentially and longitudinally displaced from the second end. Each second interconnecting element having a first end and a second end, the first end circumferentially and longitudinally displaced from the second end. The first interconnecting elements extend between first peaks on the first undulating band-like element and second troughs on the second undulating band-like element. The second interconnecting elements extend between second peaks on the second undulating band-like element and third troughs on the third undulating band-like element. The number of first peaks separating circumferentially adjacent first interconnecting elements is

less than the number of second peaks separating circumferentially adjacent second interconnecting elements. All of these features are present in the stent of Exhibit A. The features of new claims 40-45 which are dependent directly or indirectly from claim 39 are also seen in the stent of Exhibit A.

7. The features of claim 49 are also present in the stent of Exhibit A. The stent of Exhibit A comprises a plurality of undulating band-like elements including a proximal band-like element of a single first wavelength and single first amplitude having alternating first peaks and first troughs, an intermediate band-like element of a single second wavelength and second single amplitude having alternating second peaks and second troughs, a distal band-like element of a single third wavelength and single third amplitude having alternating third peaks and third troughs where the intermediate undulating band-like element is disposed between the proximal and distal undulating band-like elements. A second distal band-like element having alternating fourth peaks and fourth troughs is distal to the distal band-like element. First interconnecting elements extend between first peaks on the proximal undulating band-like element and second troughs on the intermediate undulating band-like element. Second interconnecting elements extend between second peaks on the intermediate undulating band-like element and third troughs on the distal undulating band-like element. Third interconnecting elements extend between third peaks on the distal undulating band-like element and fourth troughs on the second undulating band-like element. The first ends of the first interconnecting elements extend from every third first peak and the second ends of the second interconnecting elements extend from every third third trough. Each second interconnecting element is separated from the third interconnecting element nearest to it by a single third peak and a single third trough. The interconnecting elements are linear. The first and third amplitudes are greater than the second amplitude and the first and third wavelengths are greater than the second wavelength. All of these features are present in the stent of Exhibit A.

8. The stent of Exhibit A is also seen to have the features of claim 52. Specifically, the stent comprises a plurality of undulating band-like elements including a first band-like element having alternating first peaks and first troughs and a second band-like element having alternating second

peaks and second troughs. The first and second band-like elements are adjacent one another. The stent includes first interconnecting elements with each first interconnecting element having a first end and a second end, the first end circumferentially and longitudinally displaced from the second end. The first interconnecting elements extend between first peaks on the first undulating band-like element and second troughs on the second undulating band-like element. First interconnecting elements which are adjacent one another are connected to each other via a first path along the first band-like element and via a second path along the second band-like element. The length of the first path is different from the length of the second path. The first interconnecting elements are linear and the first and second undulating band-like elements are characterized by different amplitudes. All of these features are present in the stent of Exhibit A.

9. I hereby declare that all statements made herein of my knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

DRAFT

Timothy J. Ley

Date